

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P/63136/DSI		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB01/04399	International filing date (day/month/year) 03/10/2001	Priority date (day/month/year) 03/10/2000	
International Patent Classification (IPC) or national classification and IPC H01Q21/28			
Applicant MARCONI CORPORATION PLC et al.			



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 29/04/2002	Date of completion of this report 14.02.2003
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Johansson, R Telephone No. +49 89 2399 7594 

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International application No. PCT/GB01/04399

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-19 as originally filed

Claims, No.:

1-42 as originally filed

Drawings, sheets:

1/14-14/14 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

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☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
☐ paid additional fees.
☐ paid additional fees under protest.
☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☒ not complied with for the following reasons:
see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
☒ the parts relating to claims Nos. 1-13,21-25.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims
	No:	Claims 1,21
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-13,21-25

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Industrial applicability (IA)	Yes:	Claims	1-13,21-25
	No:	Claims	

2. Citations and explanations
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

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Reference is made to the following documents:

D1= JP 08044831

D2= JP 2000077928

Re Item IV

Lack of unity of invention

The separate inventions/groups of invention are:

I: Claims 1-13, 21-25; Relate to a wireless communication device comprising a dipole and first and second loop antennas operating at a first and second frequency, respectively, and a method for tracking an item provided with such a device.

II: Claim 14-20: Relates to a wireless communication system comprising first and second wireless communication devices and a loop conductor antenna.

III: Claims 26-28: Relate to a transponder comprising a dipole and first and second loop antennas being positioned opposite said dipole and capacitively coupled thereto.

IV: Claims 29--36: Relate to a wireless communication device comprising an asymmetrical dipole and an antenna loop capacitively coupled to said dipole.

V: Claims 37-42: Relate to a method of testing output from a wireless device.

These groups of inventions are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

A. The common concept between groups I and II (i.e claims 1 and 14) is:

A wireless communication device comprising:

-a communication electronics/device;

-a first loop conductor antenna operating at a first frequency, said first loop conductor antenna being operatively connected to said communication electronics.

This common subject matter is not novel, see D2.

B. The common concept between groups I and III (i.e claims 1 and 26) is:

A wireless communication device (transponder) comprising:

- a first loop conductor antenna;
- a second loop conductor antenna;
- a pole antenna.

This common subject matter is not novel, see D1.

C. The common concept between groups I and IV (i.e claims 1 and 29) is:

A wireless communication device comprising:

- communication electronics;
- a loop conductor antenna operating at a first (or second) frequency;
- a pole antenna operating at a second (or first) frequency, said pole antenna being operatively connected to said communications electronics.

This common subject matter is not novel, see D2.

D. The common concept between groups I and V (i.e claims 1 and 37) is:

A wireless communication device/method of testing comprising:

- communication electronics;
- said communication electronics selectively communicating with an interrogator at a first and a second frequency, respectively.

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This common subject matter is not novel, see either of D1 and D2.

- E. It is also observed that the common concept between any of the remaining combinations of the different groups of inventions (i.e II and III or IV or V, III and IV or V, and finally IV and V) lacks novelty over D1 or D2.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Independent claims 1 and 21.

1.1 D1 discloses (cf. Figure 1b)

A wireless communication device comprising:

- a communication electronics 103;
- a first loop conductor antenna operating at a first frequency 101, said first loop conductor antenna being operatively connected to said communication electronics 103.
- a second loop conductor antenna 101 operating at a second frequency, said second loop conductor antenna being operatively connected to said communication electronics 103; and
- a pole antenna 105 operating at a third frequency, said pole 105 antenna being operatively connected to said communication electronics 103
- said communication electronics 103 selectively communicating with a remotely positioned interrogator through one of said antennas, 101, 105.

Thus the subject matter of claim 1 is not novel (Article 33(2) PCT).

1.2 The same objection applies mutatis mutandis to the subject matter of claim 21.

2. It is also noticed that the subject matter of claim 1 lacks inventive step with respect to D2 which discloses a wireless communication comprising communication electronics 13, a first loop conductor 12 and a pole antenna 14. The subject matter of claim 1 therefore differs from the disclosure in D2 in that a second loop antenna is provided. However, it is obvious to the person skilled in the art to add further loop conductors if it is considered desirable to communicate on additional and separate frequency bands. Consequently, the subject matter of claim 1 lacks inventive step (Article 33(3) PCT) over D2.
- 2.1 The same objection applies mutatis mutandis to the subject matter of claim 21.
3. Dependent claims 2-13 and 22-25 are either known from D1-D2 or amount to trivial means. Consequently, these dependent claims do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirement with respect to inventive step.